Base Year Ozone SIP Point Source Inventory

The Ozone SIP requires a base year point source inventory as a building block for the SIP. The base year inventory selected for this evaluation was the 2017 inventory, which was collected in and managed through the State and Local Emissions Inventory System (SLEIS).

As with all inventories collected for this analysis, the pollutants included PM_{10}, $PM_{2.5}$, NO_X, SO_2, VOC, CO, and NH3 and the unit of measurement was tons per year (tpy). Once the inventory was completed, a pre-processor called SMOKE converted it to a 24-hour period. The data points for each facility provided for the SMOKE processing include:

- County FIPS
- North American Industry Classification System (NAICS) Code
- Standard Industrial Classification (SIC) Code
- DAQ Facility ID
- Facility Name
- SLEIS Component ID
- SLEIS Process ID
- Source Classification Code (SCC)
- SLEIS Emissions Release Point (Stack) ID
- Stack Height
- Stack Diameter
- Stack Exit Gas Temperature
- Stack Exit Gas Flow ($Feet^3$/Second)
- Stack Exit Gas Velocity (Feet/Second)
- Latitude/Longitude
- Operation
    - Hours/Day
    - Days/Week
    - Weeks/Year
    - Hours/Year
    - Monthly Operational Percentages
- Emission Tons/Year
- Pollutant Name

Source Selection:

At the beginning of this ozone SIP, the 2017 triennial inventory was the latest and most current inventory available for point sources, which included all major sources, Title V sources, and any sources included in the PM_{10} or ozone maintenance plans. Staff used the definition of a Type B Source under Title V of the Clean Air Act (as specified in 40 CFR Appendix A to Subpart A of Part 51) to define point source thresholds in the nonattainment areas. The provided inventory includes all Type B sources of NO_X, VOC, and CO in the non-attainment area that have the potential to emit 100 tpy NO_X or VOC. Emissions from sources under the Type B thresholds are

included in the area source base year inventory, as they do not have large enough potential emissions to qualify for the point source base year inventory.

According to the above definition, Utah had 53 Type B Sources as of 2017 based on the facilities' potential to emit in their Approval Orders. Table 1 lists the 53 Type B Sources along with their 2017 actual emissions for PM_{10}, $PM_{2.5}$, SO_2, NO_X, VOC, CO and NH_3.

Table 1. Major Point Sources with 2017 Base Year Emissions in tons per year (tpy)

Northern Wasatch Front Ozone NAA					
Site ID	**Site Name**	**County**	**NOx**	**VOC**	**CO**
10122	Big West Oil, LLC- Big West Oil Refinery	Davis	115.15	676.59	235.13
10119	Chevron Products Co - Salt Lake Refinery	Davis	253.64	363.88	245.94
11386	Hexcel Corporation: Salt Lake Operations	Salt Lake	189.68	151.11	105.03
10121	Hill Air Force Base- Main Base	Davis	101.43	140.24	104.80
10123	Holly Corp- HRMC and HEP Woods Cross Operations	Davis	170.51	217.45	404.25
10572	Kennecott Utah Copper LLC- Power Plant Lab Tailings Impoundment	Salt Lake	460.80	6.59	36.12
10346	Kennecott Utah Copper LLC- Smelter & Refinery	Salt Lake	134.16	10.82	92.03
10571	Kennecott Utah Copper LLC: Mine & Copperton Concentrator	Salt Lake	4,209.19	210.03	1,357.04
10707	Lhoist North America - Grantsville Plant	Tooele	0.11	0.07	0.06
10355	Pacificorp Energy- Gadsby Power Plant	Salt Lake	38.81	2.26	27.08
10335	Tesoro Refining & Marketing Company LLC - Salt Lake City Refinery	Salt Lake	313.27	230.77	255.07
10354	University of Utah- University of Utah facilities	Salt Lake	41.65	8.13	38.02
12495	Utah Municipal Power Agency: West Valley Power Plant	Salt Lake	10.09	1.47	14.37
10129	Wasatch Integrated Waste Mgt District- DCERF	Davis	91.82	23.72	34.98
			6,130.31	**2,043.13**	**2,949.91**
Southern Wasatch Front Ozone NAA					
Site ID	**Site Name**	**County**	**Nox**	**VOC**	**CO**
10790	Brigham Young University - Main Campus	Utah	66.92	5.54	25.88
10794	McWane Ductile	Utah	34.42	26.80	12.44
13031	PacifiCorp Energy: Lake Side Power Plant	Utah	207.06	26.26	917.07
			308.40	**58.60**	**955.39**
Uinta Basin Ozone NAA					
Site ID	**Site Name**	**County**	**Nox**	**VOC**	**CO**
10209	Kinder Morgan Altamont LLC- East Compressor Station	Duchesne	451.58	55.90	84.66
10210	Kinder Morgan Altamont LLC- West Compressor Station	Duchesne	312.56	34.66	20.65
10211	Kinder Morgan Altamont LLC - South Compressor Station	Duchesne	397.14	41.60	64.38
15438	LaPoint Recycle and Storage - Produced Water Facility	Uintah	1.37	21.61	0.32
15439	Western Water Solutions, Inc. - Sand Pass Ranch Evaporation Facility	Duchesne	0.34	205.10	0.19
			1,162.98	**358.86**	**170.19**

Surrounding Area					
Site ID	**Site Name**	**County**	**NOx**	**VOC**	**CO**
10303	Ash Grove Cement Company- Leamington Cement Plant	Millard	1,192.02	53.01	6,278.88
10009	ATK Launch Systems - Promontory	Box Elder	35.83	29.93	36.59
10725	Clean Harbors Aragonite LLC: Hazardous Waste Storage Incineration	Tooele	126.60	5.87	43.53
10706	Dugway Proving Ground- U.S. Army-Dugway Proving Ground	Tooele	16.78	12.38	131.92
10107	ECDC Environmental LC: East Carbon Landfill	Carbon	14.31	15.82	33.50
14010	Energy Fuels Resources (USA) Inc. Tony M. Mine	Garfield	-	-	-
12929	EnerVest Operating - Sage Brush Flat Compressor Station	Carbon	15.28	20.74	3.05
12948	EnerVest Operating L.L.C.: Dry Canyon Compressor Station	Carbon	7.40	14.34	9.79
13284	EnerVest Operating L.L.C.: Interplanetary Compressor Station	Carbon	5.13	13.30	7.13
11767	Genpak Corporation: Polystyrene Foam Production Facility	Iron	1.08	71.08	0.46
10313	Graymont Western US Incorporated- Cricket Mountain Plant	Millard	568.99	12.34	278.82
11284	Hill Air Force Base- Utah Test and Training Range	Tooele	14.17	3.52	5.04
10007	Holcim (US) Inc.- Devil's Slide Plant	Morgan	1,426.83	45.11	1,059.51
10327	Intermountain Power Service Corporation- Generation Station	Millard	9,333.37	9.65	964.59
12512	Kern River Gas Transmission Company- Veyo Compressor Station	Washingto	70.83	5.51	11.47
10311	Materion Natural Resources- Delta Mill	Millard	13.70	6.21	8.86
10259	Northwest Pipeline GP: Cisco Compressor Station	Grand	2.56	0.04	1.09
10627	Northwest Pipeline GP: Moab Compressor Station	San Juan	34.48	1.31	4.94
10008	Nucor Steel- Nucor Steel	Box Elder	182.41	31.49	688.01
14185	OWL Danish Flats SWD -Produced Water Evaporation Ponds, Cisco	Grand	0.63	147.39	1.26
12524	PacifiCorp Energy: Currant Creek Power Plant	Juab	157.68	10.02	297.96
10237	PacifiCorp- Hunter Power Plant	Emery	9,776.71	119.75	3,158.09
10238	PacifiCorp- Huntington Power Plant	Emery	5,934.58	74.78	5,107.68
10034	Paradox Midstream, LLC - Lisbon Natural Gas Processing Plant	San Juan	-	-	-
14107	Procter and Gamble-Paper Manufacturing Plant	Box Elder	28.31	17.30	28.18
11532	Questar Pipeline LLC: Kastler Marushack Compressor Station	Daggett	639.15	44.79	28.03
10892	St. George City Power: Red Rock Power Generation Station	Washingto	15.99	2.85	6.01
10096	Sunnyside Cogeneration Associates- Sunnyside Cogeneration Facility	Carbon	430.77	25.39	42.76
10716	US Magnesium LLC- Rowley Plant	Tooele	1,061.59	660.26	323.05
10676	Utelite Corporation: Shale Processing	Summit	211.45	2.32	9.27
10028	Vulcraft - Division of Nucor Corporation- Steel Products	Box Elder	6.15	42.92	6.38
			31,324.75	**1,499.43**	**18,575.84**

Data Collection and QA/QC

SLEIS utilizes extensive built-in computing capabilities which standardize calculations. SLEIS also contains extensive QA/QC which guides point sources as they submit their data, greatly reducing oversight required by UDAQ staff. The submitted emissions inventories were thoroughly reviewed using additional QA/QC by UDAQ staff before being finalized. Each facility's submission is reviewed and compared against previous inventories and the corresponding permit to ensure all equipment is captured in the inventory and that calculation methods remain sound and consistent. This QA/QC process greatly surpasses EPA guidance requiring 10% QA/QC as the minimum criteria necessary for a SIP inventory.